

ALO--WWID-WIPP-1999-0001

Final Report

Occurrence Report

Waste Isolation Pilot Plant

(Name of Facility)

Nuclear Waste Operations/Disposal

(Facility Function)

Carlsbad Area Office

Westinghouse Waste Isolation Div.

(Laboratory, Site, or Organization)

Name:XXXXXXXXXXXX**Title:** Facility Manager Designee**Telephone No.:** (505) XXXXXXXX

(Facility Manager/Designee)

Name: XXXXXXXXXXXX**Title:** SURFACE OPERATIONS MANAGEMENT ASST.**Telephone No.:** (505) XXXXXXXX

(Originator/Transmitter)

Name:**Date:**

(Authorized Classifier (AC))

1. Occurrence Report Number: ALO--WWID-WIPP-1999-0001

SUSPECT COUNTERFEIT FASTNERS ON TRUPACT-II TRANSPORTATION TRAILERS

2. Report Type and Date: Final

	Date	Time
Notification:	01/07/1999	12:25 (MTZ)
Initial Update:	02/23/1999	09:54 (MTZ)
Latest Update:	02/23/1999	09:54 (MTZ)
Final:	04/26/1999	07:25 (MTZ)

3. Occurrence Category: Off-Normal**4. Number of Occurrences:** 1**Original OR:**

5. Division or Project: Waste Isolation Pilot Plant

6. Secretarial Office: EM - Environmental Management

7. System, Bldg., or Equipment: TRUPACT-II Transportation Trailers

8. UCNI?: No

9. Plant Area: General

10. Date and Time Discovered: 01/07/1999 09:00 (MTZ)

11. Date and Time Categorized: 01/07/1999 09:30 (MTZ)

12. DOE Notification:

Date	Time	Person Notified	Organization
01/07/1999	09:35 (MTZ)	XXXXXXXXXX	CAO

13. Other Notifications:

14. Subject or Title of Occurrence:

SUSPECT COUNTERFEIT FASTNERS ON TRUPACT-II TRANSPORTATION TRAILERS

15. Nature of Occurrence:

07) Value Basis Reporting
B. Defective Item, Material or Service

16. Description of Occurrence:

Hanford occurrence report RL--PHMC-WRAP-1998-0011 documents suspect bolts found on a TRUPACT-II trailer. That report, and subsequent discussions with Hanford personnel, prompted WIPP to initiate an inspection of the other 22 such trailers. Those inspections have been completed. Of the 23 TRUPACT-II trailers in the WIPP project fleet, 22 have been found to contain some suspect bolts. Most of the suspect bolts are located in such ancillary trailer devices as mud flaps and wiring clips. However, we have identified suspect bolts in the landing gear of 12 trailers. The landing gear is subject to static stress forces when the trailer is parked, but not when the trailer is hooked to a tractor.

17. Operating Conditions of Facility at Time of Occurrence:

Normal Operations

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

The inspection results have been formally documented. According to the cognizant engineer at WIPP, suspect fasteners on the trailer fleet were documented several years ago, and appropriate engineering analysis and disposition made. Attempts to locate and retrieve those documents from history files is ongoing. At this time, no such documents have been located. In the absence of documents attesting to the disposition of every suspect bolt currently identified, we consider this to be an emergent issue. A plan of action is being developed to deal with the suspect bolts. The plan will be somewhat complex because the trailer fleet is dispersed throughout the DOE complex at this time, with units at INEL, Rocky Flat, Savannah River, WIPP, etc. Based on the documented findings of the inspection, the cognizant engineer does not consider that grounding of the fleet is warranted.

20. Direct Cause:

- 1) Equipment/Material Problem
 - D. Error by Manufacturer in Shipping or Marking

21. Contributing Cause(s):**22. Root Cause:**

- 1) Equipment/Material Problem
 - B. Defective or Failed Material
-

23. Description of Cause:

When the trailers were manufactured to commercial specifications in the late 1980's and early 1990's, the issue of suspect counterfeit fasteners had not reached the level of

maturity seen today. The manufacturer used fasteners from their normal supply resources. The supplier had been used for more than 20 years without the issue being raised.

24. Evaluation (by Facility Manager/Designee):

The 23 TRUPACT-II trailers in the WIPP fleet were manufactured for the DOE under Westinghouse Electric Corp contract 94-WTD-20444-ED with Nuclear Packaging Inc, Federal Way, WA. The actual manufacturer was Alloy Trailers, Inc. of Spokane, WA. The trailers were delivered between 1988 and 1992. Recent discussions with the manufacturer indicate they have used the same bolt supplier for about 30 years, and have never had a failure of a bolt reported to them in that time.

Cognizant WIPP personnel are continuing to coordinate with those facilities which currently have a trailer(s) on site to determine any necessary immediate action. With the possible exception of suspect bolts in the landing gear, nothing was found which could reasonably present a safety concern.

UPDATE CONCURRENT WITH FINAL REPORT SUBMITTAL: WIPP
Engineering has documented appropriate disposition for each suspect fastener found during the trailer inspections. Most fasteners are not to be replaced. The fasteners which are deemed satisfactory for continued service are all in ancillary locations such as hose clamps, electrical box mountings, and spare tire tie-downs. Commercial Vehicle Safety Alliance (CVSA) inspections on a per-trip basis, quarterly preventive maintenance, and annual inspections will detect any deficiencies in these areas.

All suspect fasteners associated with the landing gear are to be replaced. Because of the frequent safety inspections and preventive maintenance program, and because there is no history of having one of the bolts fail, there is not an immediate safety concern for these fasteners. Therefore, for those trailers currently in over-the-road service, these landing gear bolts will be replaced concurrent with routine maintenance periods when the trailers are in the Carlsbad area. For trailers now in Carlsbad, the landing gear bolts will be replaced before the trailer is released for further service.

The carrier (C.A.S.T.) is contractually responsible for maintenance of the trailers. Seven trailers are currently at sites remote from Carlsbad: 1 at SRS, 2 at INEL, 1 at Hanford, 1 at Rocky Flats, and 2 at LANL. The carrier will

work through appropriate local repair facilities and oversee replacement of landing gear fasteners as necessary on those trailers.

The current estimate is that suspect landing gear bolts in all trailers will be replaced by the end of this calendar year.

25. Is Further Evaluation Required?: No

26. Corrective Actions

(* = Date added/revised since final report was approved.)

- | | | |
|----|--|-------------------------------------|
| 1. | A Nonconformance Report (NCR number 99-001) was issued to document the results of the trailer inspections. | |
| | Target Completion Date: 01/14/1999 | Completion Date: 01/14/1999 |
| 2. | A safety meeting was held with personnel from the contract carrier (C.A.S.T.), the contracted local maintenance facility, and WIPP Transportation Engineers. The meeting covered the issue of suspect fasteners and included handouts and information to facilitate identification of such fasteners. Drivers were advised that any necessary on-the-road repairs must conform to applicable standards, and be documented in the equipment operating and maintenance logs. | |
| | Target Completion Date: 01/25/1999 | Completion Date: 01/25/1999 |
| 3. | A matrix was developed showing the location of suspect fasteners on each trailer. This matrix lists the location of each trailer, the planned disposition of each fastener, and justification for that disposition. | |
| | Target Completion Date: 01/29/1999 | Completion Date: 01/29/1999 |
| 4. | Suspect fasteners in landing gear assemblies on all trailers will be replaced. | |
| | Target Completion Date: 12/31/1999 | *Completion Date: 06/30/1999 |

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

None

31. Similar Occurrence Report Numbers:

1. RL--PHMC-WRAP-1998-0011

32. User-defined Field #1:**33. User-defined Field #2:**

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: XXXXXXXXXXXX, Facility Manager/Designee

Date: 02/23/1999

Telephone No.: (505) XXXXXXXX

Approved by: XXXXXXXXXXXX, Facility Representative/Designee

Date: 04/26/1999

Telephone No.: (505) XXXXXXXX

Approved by: Approval delegated to FR

Date: 04/26/1999

Telephone No.:
